Our ref: KOY-17 Client's ref: F1011-US

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Application of: Wataru Ishikawa :

Art Unit: 2853

Appln. No. : 10/774,734

Examiner: L.E.

Filed : February 9, 2004

:

Title : ACTIVE RAY CURABLE

TYPE AQUEOUS INK AND :
IMAGE FORMING METHOD
AND PRINTED MATTERS BY :

THE USE THEREOF

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DECLARATION

I hereb

I hereby certify that this correspondence is being EFS-Web or facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on June 21, 2007.

Donald C. Lucas, Reg. No. 31,275

LUCAS & MERCANTI, LLP

CERTIFICATE

Hon. Commissioner of Patents P.O. Box 1450 Alexandria, VA 22312-1450

Sir:

- I, Wataru ISHIKAWA, hereby declare and state as
  - 1. I am the named inventor in this Application.
  - I received a Master's Degree in Process
     Technology in March of 1992 from Osaka University.

Since April of 1992, I have been employed by Konica Corporation, now Konica Minolta. During my employment, I have been engaged in research and development of silver salt photosensitive materials and UV curable type ink jet inks.

- 3. I am aware of the fact that the Examiner has applied U.S. Patent No. 5,985,984 against the claims in this case (Chatterjee). I have read Chatterjee and am of the opinion that Chatterjee's ink composition, which includes a guanamine resin, will not work as an ink jet ink. In order to prove this, I have made a UV curable ink formulation in accordance with Example 4 of Chatterjee and tested it in an ink jet printer.
- 4. Specifically, I prepared ink formulation of Example 4 of Chatterjee using the following composition.
- (a) For pigment I used pigment blue 15:3 in an amount of 15 percent.
- (b) I prepared the varnish of Example 1 of Chatterjee and used 35 percent.

- (c) For monomers/ligomers, I used a benzoquanamine oliqomer in an amount of 25 percent.
- (d) As a photoinitiator, I used hydroquinone monomethyl in an amount of 10 percent.
- (e) With respect to additives, I used n-butanol in an amount of 5 percent.
- Using this composition, identified in Paragraph
   above, I then followed the rest of Example 4.
- 6. I then used an ink composition in an ink jet printer of the type described on pages 45-46 of this Application.
- 7. In trying to jet the ink of Chatterjee, as made above, I found it would not jet from the recording heads because its viscosity was too large. Thus, it was impossible to form an image using Chatterjee's ink composition.

- 8. Furthermore, I have read U.S. Patent Publication U52002/0065335 (Noguchi) and an of the opinion that, even if the polymerizable monomer and the initiators used in Chatterjee core replaced with the ones in Noguchi, the viscosity of the resulting composition would still be too high to jet from an ink jet pointer.
- 9. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and bolief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 16 USC 1001 and that such willful false statements may jeopardize the validity of the amplication or any patent issued thereon.

Wataru Ishikawa

Dated: This day of July 20, 2007.

DCL/mr